



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,106	09/04/2001	Troy J. Liebl	114293-1623	1742

30734 7590 01/19/2005

BAKER + HOSTETLER LLP
WASHINGTON SQUARE, SUITE 1100
1050 CONNECTICUT AVE. N.W.
WASHINGTON, DC 20036-5304

EXAMINER

PEREZ DAPLE, AARON C

ART UNIT	PAPER NUMBER
----------	--------------

2154

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/944,106

Applicant(s)

LIEBL ET AL.

Examiner

Aaron C Perez-Daple

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-17 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-17 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Action is in response to RCE filed 11/8/04, which has been fully considered.
2. Claims 2-4 and 18-20 are cancelled by Applicant.
3. Amended claims 1 and 5-17 and new claim 21 are presented for examination.
4. This Action is non-Final.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
6. **Claims 13-16** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, line 2 of claim 13 recites "selecting a second diagnostic." It is not clear what "a second diagnostic" refers to. For the purpose of applying prior art, the Examiner interprets that "a second diagnostic" means "a second diagnostic value."
7. As dependent claims, claims 14-16 suffer from the same deficiencies as claim 13.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1, 12-14 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Seashore et al (US 5,916,286) (hereinafter Seashore) in view of McMahon (US 5,965,658).
10. As for claims 1 and 17, Seashore discloses a diagnostic tool, comprising:
- a data input port (port, 39, Fig. 3);
 - a microprocessor linked to said data input port (microcontroller, 31, Fig. 3);
 - a data storage device linked to said microprocessor wherein a diagnostic application program can be stored in said data storage device (SRAM, 35, Fig. 3);
 - a graphical user interface linked to said microprocessor wherein said microprocessor receives diagnostic data from said data input port, stores said data to said data storage device, and provides output data to be displayed on said graphical user interface, wherein said output is displayed on said graphical user interface as a list having an identification of one or more diagnostic values and the corresponding diagnostic value (col. 3, lines 13-17, "The information stored...the automobile status."; col. 6, lines 37-45, "A second group...confirms an option.").

Seashore does not specifically disclose a list of diagnostic values wherein an input device can be used to select a diagnostic value to change a placement location of the selected diagnostic value within an order of the list. McMahon teaches a list of diagnostic values wherein an input device can be used to select a diagnostic value to change a placement location of the selected diagnostic value within an order of the list (col. 6, lines 12-26, "Once the data is...order of download."; col. 10, lines 8-47, "There are two modes...pop-up menu appears...."). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Seashore by using a list of diagnostic values wherein an input device can

Art Unit: 2154

be used to select a diagnostic value to change a placement location of the selected diagnostic value within an order of the list, because this would allow the user to select the order in which measurements are taken, as taught by McMahon (col. 6, lines 12-26, "Once the data is...order of download.").

11. As for claim 12, Seashore discloses a method of displaying diagnostic data, comprising the steps of:

displaying a list of diagnostic values on a graphical user interface of a handheld diagnostic tool wherein said list includes an identification of each diagnostic value (col. 3, lines 1-17, "The portable automobile diagnostic...the automobile status.");

selecting a first diagnostic value from the list of displayed values (col. 3, lines 8-11, "The automobile make and model...in the flash memory."; col. 6, lines 37-45, "A second group...confirms an option.").

Seashore does not specifically disclose changing a placement location of the first selected diagnostic value within an order of the list. McMahon teaches changing a placement location of the first selected diagnostic value within an order of the list (col. 6, lines 12-26, "Once the data is...order of download."; col. 10, lines 8-47, "There are two modes...pop-up menu appears...."). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Seashore by changing a placement location of the first selected diagnostic value within an order of the list, because this would allow the user to select the order in which measurements are taken, as taught by McMahon (col. 6, lines 12-26, "Once the data is...order of download.").

Art Unit: 2154

12. As for claim 13, Seashore discloses a method similar to that of claim 12, further comprising selecting a second diagnostic (col. 6, lines 37-45).

As for claim 14, Seashore discloses the method of claim 13 further comprising the step of loading a diagnostic application program into a memory device of said diagnostic tool (col. 5, line 63 – col. 6, line 6, “A programmable automobile...time on a vehicle.”).

13. **Claims 5-7, 10 and 21** are rejected under 35 U.S.C. 103(a) as being obvious over Seashore in view of McMahon and in further view of Borsuk (US 5,475,399).

14. As for claims 5 and 21, neither Seashore nor McMahon specifically teach using an input device to change the font of an entry in a list of diagnostic values. However, Borsuk teaches using an input device to change the font of entries in a display of a hand held portable unit (col. 2, line 51 – col. 3, line 6, “The present invention...displayed on the screen.”).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Seashore and McMahon by using an input device, such as the keypad, to change the font of an entry in the list of diagnostic values in order to accommodate the needs of visually impaired or visually strained individuals, as taught by Borsuk (col. 2, lines 17-23, It should be realized...his or her needs.”).

15. As for claim 6, Seashore discloses a diagnostic tool similar to that of claim 5 wherein said data input port links to and receives data from an onboard vehicle computer (Fig. 1; col. 4, lines 45-53, “FIG. 1 is an illustration...to automotive computer 12.”).
16. As for claim 7, Seashore discloses a diagnostic tool similar to that of claim 6 wherein said data storage device includes a flash memory card (flash memory, 34, Fig. 3) and wherein said diagnostic application program is loaded on said flash memory card prior to inserting

Art Unit: 2154

said flash memory card into said diagnostic tool (col. 8, lines 24-25, "ROM 37 and a portion...diagnostic tool 30.").

17. As for claim 10, Seashore discloses a diagnostic tool similar to that of claim 9 further comprising a transmitter connected to said microprocessor for wirelessly transmitting data (col. 4, lines 53-56, "An alternate to cable 15...provide cableless communications.").
18. **Claims 8 and 9** are rejected under 35 U.S.C. 103(a) as being obvious over Seashore in view of McMahon in further view of Borsuk and in further view of Danielson et al (US 5,895,906) (hereinafter Danielson).

As for claim 8, Seashore teaches the use a hardware interface port for interfacing with various hardware systems and for downloading software applications (port, 39, Fig. 3; col. 7, lines 37-60, "Portable automobile diagnostic...codes stored therein."). However neither Seashore nor Borsuk specifically disclose the use of a hardware interface module with memory for storing a software application in conjunction with the hardware interface port. However, Danielson teaches the use of a hardware interface module with memory for storing a software application in conjunction with a hardware interface port (col. 3, lines 38-42, "A feature of the...concerning a transaction.").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Seashore, McMahon and Borsuk to include a hardware interface port module containing a diagnostic application program and wherein the diagnostic tool contains a hardware interface port for receiving said hardware interface port module, because this would allow a user to interact with a central processing station, as taught by Danielson (col. 1, lines 58-64, "In another aspect...computer processing station.").

19. As for claim 9, neither Seashore nor Borsuk specifically disclose a diagnostic tool wherein a plurality of hardware interface port modules having separate diagnostic application programs can be provided for connection, at different times, to said hardware interface port. However, Danielson teaches the use of a plurality of hardware interface port modules having separate diagnostic application programs which can be provided for connection, at different times, to said hardware interface port (col. 3, lines 18-24, "The computer processor...hand-held unit.")

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Seashore, McMahon and Borsuk to include the use of a plurality of hardware interface port modules having separate diagnostic application programs which can be provided for connection, at different times, to said hardware interface port because this would allow a user to interact with a central processing station or stations, as taught by Danielson (col. 1, lines 58-64, "In another aspect...computer processing station.").

20. **Claim 11** is rejected under 35 U.S.C. 103(a) as being obvious over Seashore in view of McMahon in further view of Borsuk and in further view of Herrod et al (US 6,405,049) (hereinafter Herrod). Neither Seashore, McMahon nor Borsuk specifically disclose the use of an infrared transmitter wherein said data is wirelessly transmitted to a printer. However, Herrod discloses the use of an infrared transmitter for wirelessly transmitting data to a printer (Fig. 10; col. 17, lines 27-49, "The wireless communications...range for the terminal.").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Seashore, McMahon and Borsuk to include the use of an infrared transmitter for wirelessly transmitting data to a printer, as taught by Herrod, in

Art Unit: 2154

order to allow the operator to generate a paper copy of diagnostic data over a wireless network.

21. **Claims 15 and 16** are rejected under 35 U.S.C. 103(a) as being obvious over Seashore and McMahon in further view of Gurne et al (US 5,541,840) (hereinafter Gurne).

As for claims 15 and 16, neither Seashore nor McMahon specifically disclose displaying a diagnostic value using a graph with an axis, nor changing the scale of the axis. However, Gurne discloses displaying a diagnostic value using a graph with an axis wherein the scale of the axis can be changed (Fig. 12; col. 16, lines 41-65, "As shown in FIG. 12...costly test equipment.").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Seashore and McMahon to include displaying a diagnostic value using a graph with an axis wherein the scale of the axis can be changed, because this would allow the operator to view diagnostic information as it changes over time, as taught by Gurne (col. 16, lines 52-61, "Since the data...events or occurrences.").

Response to Arguments

22. Applicant's arguments filed 11/8/04 have been fully considered but they are not persuasive.
23. Applicant asserts in the Remarks filed 11/8/04 that Seashore and McMahon fail to properly anticipate the limitation of a "graphical user interface." The Examiner respectfully disagrees. First the Examiner notes that, with the exception of claims 15 and 16, none of the claims actually require the display of anything other than a list of diagnostic identifications

Art Unit: 2154

and values, which have further been disclosed in the specification as having a text format. As previously noted, Seashore discloses displaying just such information (col. 6, lines 37-62). Although the claims have been amended to recite “and/or a graph of said output data,” the use of “and/or” means that the claimed invention does not actually have to display the graph (i.e. when read as “or”). The LCD screen of Seashore is reasonably interpreted as comprising a “graphical user interface,” because LCD screens are capable of displaying graphics (see newly cited FOLDOC definition). Furthermore, McMahon explicitly teaches the display of graphical information on a portable diagnostic tool (col. 11, lines 63-65). Thus, even assuming that Seashore were not already sufficient to teach this limitation, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Seashore by adding a graphical display of the output data for the purpose of making the data easier to interpret.

With respect to claims 15 and 16, Applicant asserts that Seashore, McMahon and Gurne fail to properly anticipate storing and displaying a third diagnostic value graphically over at least an axis. The Examiner respectfully disagrees. First, all three of the references clearly disclose displaying multiple diagnostic values, which would include a third value. Second Gurne explicitly discloses displaying these values over an axis and changing the scale of the axis in the previously cited col. 16, lines 41-65 and Fig. 12.

For all of these reasons, claims 1, 5-17 and 20 are properly rejected under 35 USC 103 (a).

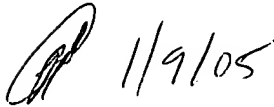
Art Unit: 2154

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. <http://foldoc.doc.ic.ac.uk/foldoc/foldoc.cgi?query=lcd>, note ability to display images.
25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron C Perez-Daple whose telephone number is (571) 272-3974. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 11/9/05
Aaron Perez-Daple


JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100